Findings and Conclusions

A total of 64 intersection models were created using the SYNCHRO software. Eight intersection designs were modeled having eight different traffic volume scenarios. As stated earlier, the following measures of effectiveness were noted for each model: intersection delay, LOS, ICU %, and ICU LOS. A table was created for each scenario. The measures of effectiveness of each intersection design were placed into these tables. Appendices A through H show more detailed information about the intersection designs. Each design was modeled using a speed of 45 mph and 55 mph in order to determine if speed was a factor that affects the measures of effectiveness. The intersections were then evaluated in order to determine which designs worked well for each scenario.

As stated before, each unconventional intersection design was modeled using SYNCHRO. Figure 10 through Figure 17 show screen captions of the eight intersection designs as modeled using the SYNCHRO software. Unsignalized intersections are marked with a black dot. Signalized intersections are marked with a white dot.
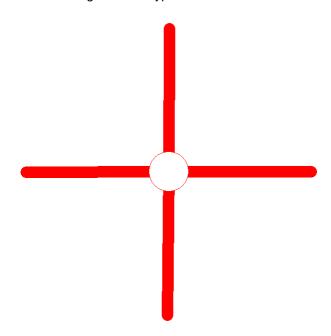
Figure 10 – Typical Intersection